

## REMARKS

1. Applicants acknowledge the restriction requirement and elect Group I, Claims 1-22, 32, and 47-52, for a superlens. Applicants traverse the restriction requirement on the grounds that the Office Action does not make out a prima facie case for a restriction. U.S. Patent Law, 35 U.S.C. § 121, states that in order to require Applicants to file a divisional application, the two or more inventions in the application must be separate and independent. See M.P.E.P. 802. Each of the restriction requirements in the present Office Action alleges that there are two distinct groups of claims, but there is no contention that the groups are independent. Accordingly, none of the restriction requirements are proper. Applicants also traverse on the grounds that the Office Action does not make out a prima facie case of distinctness, as will be shown below on a case-by-case basis. Applicants also respectfully point out that Claim 24 has not been assigned to one of the Groups, and request the Examiner to examiner Claim 24 in any case.

2. The Office Action maintains that the Restriction requirement is proper as between Group I and Group II, Claims 35-46, for a method of making the superlens. The restriction is proper, states the Office Action, because the inventions are distinct, and under M.P.E.P. 806.05(f), the product as claimed can be made by another and materially different process, in this instance, "the lens may be made by the process drawing perform." Applicants assume that the Examiner intended "by the process of drawing perform," i.e., by drawing performs and stacking them to form the superlens.

This example does not give sufficient detail for a possible process, and in any case, as is well known to those having ordinary skill in this art, a Graded Refractive Index (GRIN) structure is formed by repeated application of semiconductor layering and etching processes. See, e.g., U.S. Pat. No. 6,878,562. Without more detail, Applicants are not aware of any possible process for fabricating a GRIN structure or film that involves a process of drawing or a process that involves discrete preforms.

While allegations of different processes need not be documented in the Office Action, there must be some rationale that the proposed process could actually make the

claimed product. In this instance, since the prior art requires well-known semiconductor processes, it is simply not possible that discrete, individual preforms or performs could be drawn and somehow stacked to make a GRIN structure, as part of a process for making a superlens. Applicants have convincingly traversed the requirement. Under M.P.E.P. 806.05(f), the burden is on the Office to document a viable alternative process, or to withdraw the restriction requirement. The Examiner is respectfully requested to withdraw the restriction requirement as between Group I and Group II.

3. The Office Action has also imposed a Restriction requirement as between Group I and Group III, Claims 23 and 25-31, drawn to a coupling end product in which the superlens is used to couple to waveguides. The Office Action maintains that the restriction is proper because the inventions of Groups I and III are related as mutually exclusive species in an intermediate-final product relationship, and are patentably distinct.

Applicants traverse on the grounds that the Office Action has not contended that the inventions are independent. For example, if two carbon compounds are related as intermediate and final product, they are not independent. M.P.E.P. 806.04(b), third paragraph. Since restriction is only proper if the inventions are independent and distinct, the restriction requirement as between Groups I and III is therefore improper.

The purpose of imposing a restriction requirement is to ease the burden on an Examiner, so that the Examiner does not have to perform searches on many claims. In this instance, Groups I and III have at least dependent claims that are similar, although they depend from different claims. For instance, the Examiner will have to search for prior art with anti-reflective coatings in both Group I (for Claim 16) and Group III (for Claim 27). Thus, the searches for both Groups may be similar, and no burden will be spared the Examiner by imposing this restriction requirement.

4. The Office Action has also required a restriction as between Group I, Claims 1-22, 32, and 47-52, and Group IV, Claim 33, drawn to a superlens used in an end product. The Office Action states that the inventions are distinct because the intermediate product may be useful to make something other than the final product, i.e.,

the intermediate product "is deemed to be useful as a gradient index lens for collimating light beam." This is nothing more than the ordinary use of a gradient refractive index (GRIN) lens, which inherently collimates light. See U.S. Pat. No. 6,542,665. This structure is included in the Claim 1 recitation of a "Graded Refractive Index multi-layer structure." Accordingly, the Office Action is contending that a Group I intermediate product will indeed be a Group I intermediate product; the Office Action is NOT contending that the intermediate product is useful to make something other than the final product of Claim 33.

The Office Action has failed to make out a prima facie case that the Groups are distinct, and has not contended that the Groups are independent. The Examiner is respectfully requested to withdraw the restriction requirement between Groups I and IV.

5. The same argument applies to the restriction requirement between Group I and Group V. Because a GRIN lens inherently collimates light, the Office Action fails to make out a prima facie case that the Groups are distinct, and has not contended that the Groups are independent. The Examiner is respectfully requested to withdraw the restriction requirement between Groups I and V.

6. The Office Action also includes a restriction requirement as between Group II, a method of making a superlens, and each of Groups III, IV, and V, which Groups recite claims with superlens product limitations. Applicants traverse the restriction requirement. M.P.E.P. 806.05 (j) allows a restriction only if three conditions are met:

- (A) the inventions as *claimed* do not overlap in scope, i.e., are mutually exclusive;
- (B) the inventions as *claimed* are not obvious variants; and
- (C) the inventions as *claimed* are either not capable of use together or have a materially different design, mode of operation, function or effect. See MPEP § 802.02

(emphasis in the original).

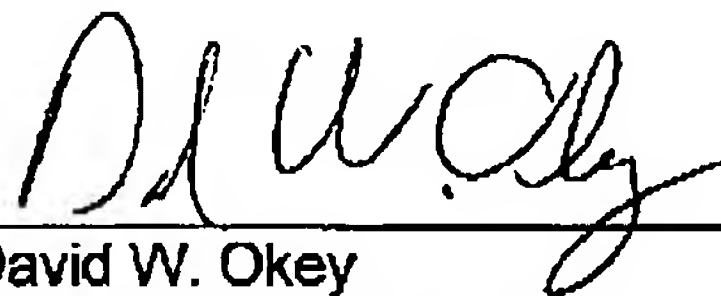
The Office Action does not contend that all three requirements have been met for each of the three group pairings, Group II and Group III, Group II and Group IV, and Group II and Group V. Accordingly, the Office Action fails to make out a prima facie

restriction requirement for each of these pairings. The Examiner is respectfully requested to withdraw the restriction requirement.

7. The same argument concerning the requirements of M.P.E.P. 806.05(j) applies to the restriction requirement between Groups IV and V. The Office Action does not contend that all three requirements have been met for this restriction requirement. Accordingly, the Office Action fails to make out a prima facie restriction requirement for Groups IV and V. The Examiner is respectfully requested to withdraw the restriction requirement.

8. Applicants respectfully request the Examiner to withdraw the restriction requirement for this application, because each of the requirements has been shown to be improper. The Examiner is invited to contact the undersigned attorney for the Applicants via telephone if such communication would expedite this application.

Respectfully submitted,



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